GUSTAV KLIMT

THE RONALD S. LAUDER AND SERGE SABARSKY COLLECTIONS

Edited by Renée Price

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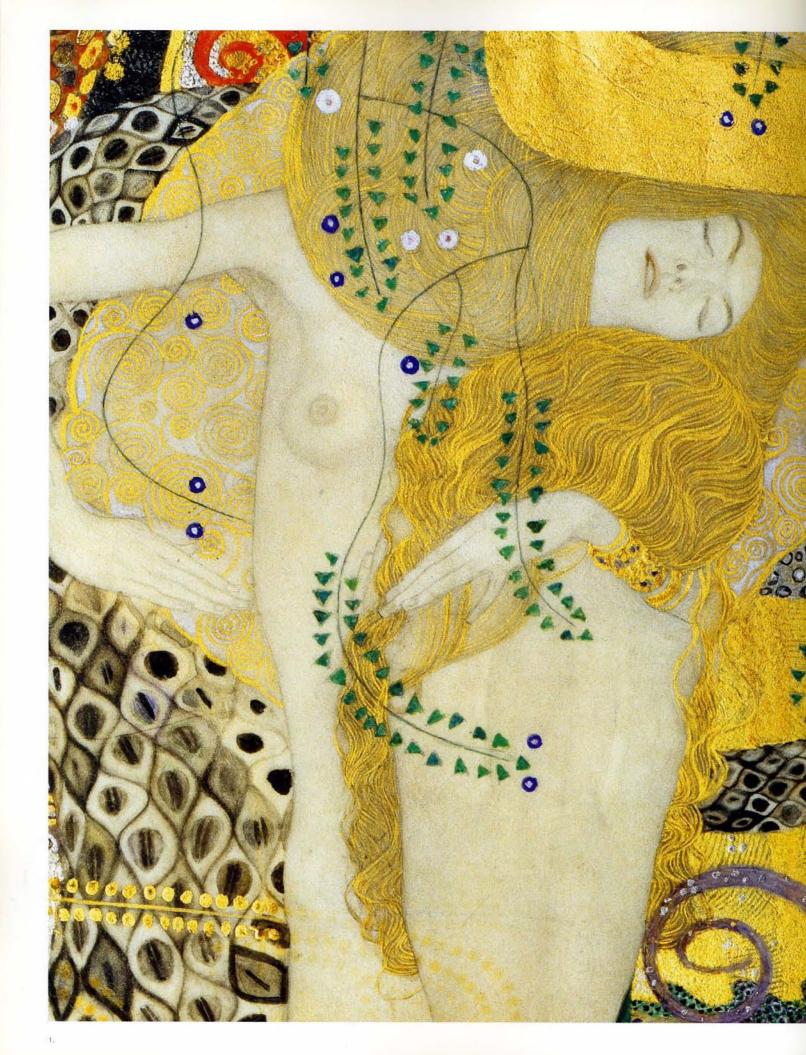
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EMILY BRAUN

Ornament as Evolution

Gustav Klimt and Berta Zuckerkandl

Looked at in one way each breadth stands alone, the bloated curves and flourishes—a kind of "debased Romanesque" with delirium tremens—go waddling up and down in isolated columns of fatuity.

But, on the other hand, they connect diagonally, and the sprawling outlines run off in great slanting waves of optic horror, like a lot of wallowing seaweeds in full chase.

... I didn't realize for a long time what the thing was that showed behind, that dim sub-pattern, but now I am quite sure it is a woman.

By daylight she is subdued, quiet. I fancy it is the pattern that keeps her so still. It is so puzzling. It keeps me quiet by the hour.

-Charlotte Perkins Gilman, The Yellow Wall-Paper, 1892

[Gustav Klimt] dissolves the female body into wonderful, decorative lines to create his ideal figure. He does away with anything accidental, any individual characteristics, so that only the typical, a sublime extract, of the modern female type is captured in pure style.

-Berta Zuckerkandl, "Gustav Klimt: On the opening of his exhibition," Wiener Allgemeine Zeitung, 1903

Despite the decade and an ocean separating one woman's harrowing account of her nervous breakdown from another's praise of archetypal feminine beauty, the dominant template has not changed: the female figure is overcome by or merges with a profusion of pattern. Charlotte Perkins Gilman's horror vacui—the hysteria of the creative woman reduced to the merely ornamental—was an image of protest against the stifling social conventions that led women to madness; by contrast, Berta Zuckerkandl extolled Klimt's ability to render the fairer of the species in all her ornamental glory. Although their pairing of ornament and women was used to different ends, the two writers were united by an unconventional feminism, impassioned by scientific knowledge of the day and informed by Charles Darwin's theories of evolution.

1. Gustav Klimt, Water Serpents I, 1904-07 (detail)

Berta Zuckerkandl, 1908. Photograph by Atelier d'Ora-Benda.
 Bildarchiv der Österreichischen Nationalbibliothek, Vienna

That Klimt's art should be interpreted in such "sexist" terms by a major critic of the time does not surprise: what gives one pause is that the author is a woman. How is it that an artist of Klimt's stature agreed to have a female journalist as a chief spokesperson for his art, at a time when few women had bylines on the cultural pages of the mass dailies? And how did Zuckerkandl reconcile her identity as an ambitious intellectual and member of the progressive women's movement with his apotheosis of female sexuality? Aside from their mutually beneficial professional relationship, the answer lies in a shared enthusiasm for the biological sciences that naturalized the politics of sexual difference and directly influenced Klimt's modernist aesthetics.

Zuckerkandl's role as Klimt's interlocutor forces us to reconsider longstanding perceptions of the artist as a misogynist painter of femmes fatales, an earthbound satyr or art-for-art's-sake hedonist, seemingly unaware of scientific or social issues.2 Studies of his intimate relationship and artistic collaborations with the fashion designer Emilie Flöge, as well as his alliances with women patrons (most of them Jewish) have complicated these stereotypes. Klimt's images of women, though encased in fin-de-siècle conventions, were anything but demeaning. The profusion of nature's beauty in his canvases represents not entrapment but the awe-inspiring origins of life and sexual selection. More than simply a decorative overlay or trope of modernist abstraction, Klimt's ornament plays a precise symbolic and narrative function. Influenced by German Romantic Naturphilosophie and its subsequent transformations in the science of Darwin and Ernst Haeckel, Klimt embedded his paintings with identifiable signs of evolutionary biology. In a telling metaphor, Zuckerkandl wrote that his early work contained "the embryological cells inherent in all of his later developments."3 Indeed, the role of ornament in his oeuvre can be seen as a conscious progression from the use of biological forms to the use of cultural ones, wherein the geometric motifs of mankind's earliest civilizations bear homology to their original, organically derived progenitors.

Berta Zuckerkandl (b. 1864, d. 1945) [Fig. 2] did not have to worry about being smothered by ugly wallpaper—her colleagues Josef Hoffmann and Dagobert Peche, principals of the Wiener Werkstätte, designed her apartment in Vienna, where she presided over one of the most influential salons in the city.⁴ Far from being an expendable, feminine embellishment, her salon had a primary role in cross-cultural pollination. Klimt, Hoffmann, Otto Wagner, Gustav Mahler, and the Jung Wien writers Stefan Zweig, Peter Altenberg, and Hugo von Hofmannsthal were among the habitués. And as a foremost theorist of the Secession (the idea for the movement was generated in her home), Zuckerkandl avoided the social pitfalls of being perceived as mere decorative object. Powerful enough to be dubbed, pejoratively, "the puppeteer of the Viennese cultural scene" by Karl Kraus, she was referred to deferentially as the "royal advisor" for her family's connection to Crown Prince Rudolf, and for her role as an effective middleman.⁵



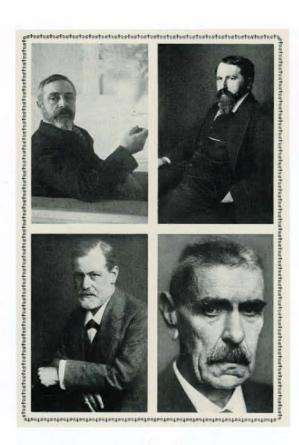




Zuckerkandl and the writers Ludwig Hevesi and Hermann Bahr made up the triumvirate of critics on the forefront of proselytizing for the new art [Fig. 3]. Hevesi claimed, with a deliberate military analogy, that Zuckerkandl relished the polemical and fearlessly headed off to the front line with "heavy munitions." "In this fight my weapon was my pen," she concurred, "my battlefield the *Wiener Allgemeine Zeitung.*" In particular, she defended Klimt against controversy and censorship arising from his explicit depiction of female nudity. When he went public with his reasons for buying back his much-maligned university murals in 1905, he granted Zuckerkandl the exclusive interview.⁶

Born into the public sphere, Zuckerkandl was the daughter of Moritz Szeps, the chief editor of the *Neues Wiener Tagblatt*, one of the leading liberal newspapers in the city. "She inherited what few people could learn," opined Hevesi. "She had journalism in her blood." Zuckerkandl grew up in a home that often hosted receptions for statesmen and intellectuals; her father's connections to French statesman Georges Clemenceau led to the marriage of her sister Sophie to his younger brother Paul. The sisters' respective salons formed a cultural axis between Paris and Vienna, underlining their liberal orientation toward the French Republic and away from Bismarck's militarism and the pan-Germanic movement. For in shaping a distinctive national art, Zuckerkandl emphasized that the Austro-Hungarian genus incorporated a variety of ethnicities, languages, and religions (including her own Jewish roots): "It was a question of defending a purely Austrian

3. Caricatures of Hermann Bahr, Berta Zuckerkandl, and Ludwig Hevesi by Bertha Czegka, 1902, from the Kunstgewerbeschule's festival almanac. "Black on White: From Viennese Authors to Viennese Pupils of the Kunstgewerbeschule for their Celebration on February 6, 1902." IMAGNO/Austrian Archives, Vienna



4. Top row, from left: Emil Zuckerkandl, Arthur Schnitzler; bottom row, from left: Sigmund Freud, Julius Wagner von Jauregg. From Österreich intim: Erinnerungen 1892–1942 by Berta Zuckerkandl

culture, a form of art that would weld together all the characteristics of our multitude of constituent peoples into a new and proud unity."8

Equally important for consideration here is the fact that Zuckerkandl enjoyed a marriage to Emil Zuckerkandl (b. 1849, d. 1910) [Fig. 4], a renowned professor of anatomy at the University of Vienna medical school, at that time the foremost institution of its kind in Europe.9 Comparative anatomy, paleontology, and, later, embryology, along with exacting observations of domesticated species, provided the scientific foundations for Darwin's theory of evolution by natural selection. Berta Zuckerkandl recalled that her husband's mention of Darwin's ideas during his inaugural public lecture at the university in 1888 so offended conservative Catholics that the minister of education demanded (unsuccessfully) his resignation.10 Just over a decade later, Klimt's university murals came under similar ideological fire because their content was rife with allusions to evolutionary science. When eleven professors petitioned against Klimt's Philosophy (Philosophie, 1900-07) [Fig. 9], Emil Zuckerkandl, then the chair of the medical faculty, led the counterprotest group.11 Through Emil, Klimt gained entry to the dissecting room to draw cadavers, facilitating the unsparing veracity of his figures-in nuditate veritas-that so enraged ideological conservatives and the aesthetic champions of an idealizing classicism.12

As much as Berta esteemed her husband (at times noting Emil's psychological "absence" from her and their only child Fritz, as he worked on his important discoveries) she admitted to the initial discomfort of having to adjust to a lower economic level after her marriage. That Klimt never painted Berta Zuckerkandl may be due to the fact that the couple could not afford it: they lived relatively modestly on Emil's university salary. In 1929, Berta and her son Fritz acquired a Klimt landscape from the estate of Emil's brother, Victor Zuckerkandl; he was a wealthy businessman who had numerous Klimt paintings in his collection and, through Berta's intervention, commissioned Werkstätte artists to design the Purkersdorf Sanatorium. It is also possible that Berta did not desire to be painted by Klimt, ambitiously preferring to be his portraitist, rendering an image of the artist for posterity through the lines of her pen.

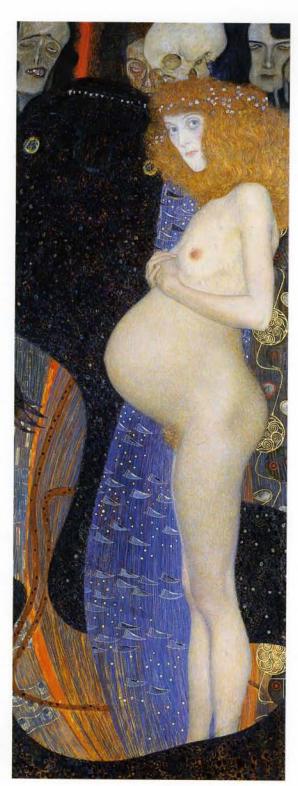
At the Zuckerkandl home, Klimt and the stars of the Viennese cultural firmament mixed with the brilliant medical scientists of the day. The psychiatrists Richard Krafft-Ebing and Julius Wagner von Jauregg and the surgeon Theodor Billroth were among the regulars, along with Berta's brother-in-law Otto Zuckerkandl, a surgeon and urologist. The two worlds were brought together in the writer Arthur Schnitzler, a specialist in nasal surgery (as well as contemporary sexual mores), who studied under Emil, and whose father, Johann, was a famed laryngologist [Fig. 4]. Berta's memoirs make clear the fascination she had for her husband's research and for his colleagues, and display her knowledge of the school's

venerable history, from its founder, Karl von Rokitansky, to the latest genius, Sigmund Freud.¹³ Her relationship to science went beyond privileged access: as a member of the progressive women's movement, she was committed to the education of the masses—"a social rather than a socialist movement," as she put it. It was a time, too, when the discoveries of scientists held interest for a broad public; the tradition of popular science—including the reception of Darwin's ideas—was particularly strong in the German-speaking nations.¹⁴ The first popular science magazine to be published in Austria, *Das Wissen für Alle*, was founded in 1901 by none other than Moritz Szeps, in support of his daughter's conviction that "intellectual democratization" spurred human progress.¹⁵

Certainly, the research of two medical giants—Krafft-Ebing and Freud—served to "prove" women's lower evolutionary rank and circumscribed female sexuality from the perspective of biological determinism. Yet other leading scientists, notably Emil Zuckerkandl, were active "feminists," and supported higher education for women, which was significantly lacking in Austria. Emil served on the committee of the Association for Extended Women's Education and taught classes in anatomy to female art and grammar-school students. In her memoir, Berta proudly wrote that her husband scoffed at the idea that women were less intelligent than men, and that he staunchly supported the admission of women into Austrian universities. She also claimed that Emil was the first faculty member to choose women research assistants after they were finally allowed, in 1900, to take degrees at the medical school:

I remember that the Dean of the University argued that my husband, as an anatomist, should know perfectly well that women's brains were less developed than those of men. My husband answered that he also knew perfectly well that "out of a hundred male students who tried to pass their medical examinations, ninety-seven were complete asses, and it could reasonably be expected that not more than ninety-seven out of a hundred women students would be absolute geese." ¹⁷

For their part, theorists of the first generation of women progressives—to which Berta Zuckerkandl belonged—upheld the essentialist roles of procreation and motherhood but fought against the determinist perception that these precluded women's social and political parity with men. As Harriet Anderson has documented, cultural regeneration in the form of intellectual awakening, rather than a break with traditional notions of womanhood, motivated the largely middle-class constituency of feminists. Marie Lang and Rosa Mayreder, leading figures of the General Austrian Women's Association, openly supported modernist art and literature for its exploration of female sexuality and its critique of the double standard of bourgeois morality. "The artistic Secession of Gustav Klimt and Josef Hoffmann and the secession of women, the women's movement, were often



5. Gustav Klimt, *Hope I*, 1903, oil on canvas. National Gallery of Canada, Ottawa

mentioned in the same breath." The interests of the two groups also dovetailed in their dedication to the reform of women's fashions. Donversely, antifeminists—who were rampant in fin-de-siècle Vienna—used the fear of societal degeneration as a weapon against sex education and female emancipation.

The public outcry (by men) over Klimt's nudes attests that his exploration of human reproduction touched on an explosive social issue: submitting Eros to scientific materialism, he implied that neither God nor man, but only nature's will, controlled the evolution of the human species. Zuckerkandl pointedly addressed Klimt's challenge to "the cowardly hypocrisy of the present day" in an article devoted entirely to his 1903 painting *Hope I* (*Die Hoffnung I*) [Fig. 5], and its upcoming exhibition at the summer 1909 *Kunstschau*. (Although this work has been traditionally titled in English *Hope I*, the translation *Expectancy* more accurately reflects its content.) Zuckerkandl aimed to offset the expected controversy generated by the image of a pregnant nude in profile, pubic hair and all:

Gustav Klimt painted the body of a naked woman in the final stages of pregnancy, her body in bloom, deformed and misshapen. The woman stands motionless, in a chaste and sacred manner, lost in her own world, contemplating the immense process going on inside her [italics added] She does not feel death behind her, nor is she aware of the gloomy figures floating quietly around her. It is a glorification of motherhood, of her unconscious heroism, shown with the most honorable and artistic mastery.²⁰

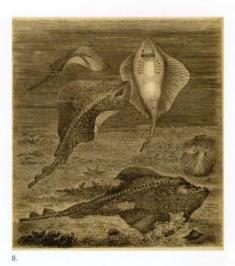
Indignant that Klimt had been forced to withdraw the work from his personal retrospective six years earlier, Zuckerkandl referred to a recently published book on motherhood to demonstrate that *Hope I* belonged to a venerable tradition in the history of Christian art: "Was there ever a better topic for the depiction of women than the drama of motherhood?" To those who objected that pregnancy and parturition were subjects best shown in private, she rejoined with examples from cathedral doors, church altarpieces, and public museums. The reaction of earlier audiences was not shock, she asserted, but simply "It is natural!"—in contrast to the feigned propriety of her contemporary viewers, who could accept nudity in old masterworks, because "the patina of age mitigates the original crudeness."²¹

"It is natural!" reiterated Zuckerkandl—a mother herself—with rhetorical flourish. In an even more naturalist exposure of "the immense process going on inside her," Klimt depicted a dark blue, balloon-shaped creature with long tail and prehensile claw, poised next to the swollen womb. Described by reviewers then and now as a dragon or monster (threatening or comic), it makes manifest Klimt's knowledge of embryology, or what Darwin termed "a picture, more or less obscured, of the common parent form of each great class of animals."²² Far from the detailed





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rendition of the human fetus found in the work of Edvard Munch and Aubrey Beardsley, Klimt invented a hybrid that explicates the origins of humans from the lowest forms of life.²³ "Ontogeny recapitulates phylogeny," succinctly stated the zoologist Ernst Haeckel (Darwin's chief proponent in the German-speaking nations), meaning that the stages of embryonic growth compressed the whole history of the evolution of the species [Fig. 6]. Hugely influential from the 1870s on, in science and in the public imagination, Haeckel's radical "biogenetic law" sought to explain the common descent of fish, amphibians, reptiles, birds, primates, and humans.²⁴

Klimt's creature lyrically embodies this "monstrous" proposition: it draws on the tadpole shape, circular ears and eyes, and tail (what becomes the os coccyx in humans) found in Haeckel's chart of the developing embryo. Not content to stop the evolutionary line at mammals, Klimt intentionally referred to the lowest class of vertebrates. A source for the fish-like being can be found in the images of electric or torpedo rays (down to the toothy grimaces and googly eyes) from the four-volume *Illustrierte Naturgeschichte der Thiere* (Illustrated natural history of animals) that Klimt had in his personal library [Figs. 7, 8, 15],²⁵ Filled with detailed black-and-white drawings of the various classes of living organisms, including microscopic cell formations, these volumes are a previously undocumented source for the diverse specimens, structures, and decorative patterns in Klimt's paintings. The sharp spines on the back of the *Raja clavata* may have inspired the triangular shapes that issue forth from the skull above and dart between the two

- 6. "Anthropogeny, or the Development of Man," mammal embryos, from *The Evolution of Man*, vol. 1, by Ernst Haeckel, 1879
- 7. "Torpedo marmorata Risso," from *Illustrierte Naturgeschichte der Thiere*, edited by Philipp Leopold Martin, 1882
- 8. "Raja clavata Linné," from *Illustrierte Naturgeschichte der Thiere*, edited by Philipp Leopold Martin, 1882



 Gustav Klimt, Philosophy, 1900–07, oil on canvas.
 Ceiling panel for the Great Hall of the University of Vienna, destroyed by fire in 1945

protagonists of *Hope I* in an amniotic field of blue [Fig. 5]. A figure of both the unknown future and the prodigious past, the extrauterine apparition represents the developing promise of the unborn child, as well as the underlying threat of deformation (reversion) or even death. The mother's calm anticipation, as Zuckerkandl observed, was heroic indeed; Klimt himself had recently experienced the death of his own son Otto Zimmermann, at about eighteen months of age.²⁶

Klimt painted Hope I while working on Jurisprudence (Jurisprudenz, 1903-07), the last of his university murals. In these monumental allegories for Vienna's preeminent institution of higher learning, he preempted Freud's assertion that Darwinism was the second great blow dealt by scientific research to "the universal narcissism of men."27 Klimt's depictions of Philosophy and Medicine acknowledged that traditional metaphysics and systems of knowledge had been radically altered by the discovery of fundamental mechanisms of biological change. The principles of natural selection had revealed the false positives of both a divine Creator and the immortality of the soul. The murals narrate the loss of transcendence and humanity's privileged position in the universe, with columns of entangled bodies flowing ceaselessly in an indeterminate direction. Officials of the university complained that Klimt extolled confusion, not lucid science; but in fact he allowed the latest research into his pictures all too clearly, as evidenced by a common clinical refrain: his art represented "the specific medical field of gynecology"; it was better "suited for an anatomical museum" or "a Krafft-Ebing institute."28

The allegorical program of Philosophy [Fig. 9] was given in a text accompanying its debut in 1900, at the seventh Secession exhibition: "On the left: genesis, reproduction, decay. On the right: the globe of the world, the riddle of the universe. Rising from below: the illuminated figure of knowledge." It reads as a virtual engagement with Darwin's closing paragraphs in On the Origin of Species, describing an evolutionary time, "whilst this planet has gone cycling on," incommensurate with the span of individual life, and endless growth and procreation, kept in check "by the war of nature." The shimmering figure of the Sphinx represents the "riddle of the universe" (or Welträtsel-significantly, as in the title of Haeckel's 1899 bestseller on evolution). While critics have focused on the Sphinx's enigmatic presence, Klimt's purpose was to reiterate the answer to the question posed in the classical story: the three ages of man, a mythic narrative now understood as the biological imperative of the species.29 Herein lies the materialist meaning of existence, as one reviewer pessimistically concluded: "Humanity remains just a tool in the hands of nature, exploited only for her own immutable and eternal purpose: reproduction."30

In Medicine (Medizin, 1901-07) [Fig. 10], Klimt likewise interpreted the struggle for existence as Darwin intended it-a metaphoric survival against environmental odds-and not as a pugnacious armed battle (Kampf ums Dasein), seen in Hans Canon's The Cycle of Life (Der Kreislauf des Lebens) installed in 1885 in Vienna's Naturhistorisches Museum. Cures may temporarily assuage bodily suffering, but famine, disease, and Death-here pictured in the lifeline of the throng-continue by nature's indomitable will. Hygeia, the goddess of health, appears in a viscous garb of stylized golden algae, filaments, and polyps. Her origins as a snake transformed out of the primordial swamp exemplify the kinship of evolutionary theory and recurrent myths of metamorphosis, making factual, as Gillian Beer has written, the imaginary "interdependence between beauty and beast."31 Significantly, Zuckerkandl reserved her one criticism of Klimt for this work, gently asserting that he had "not emphasized enough the themes of cure and healing, which are obviously part of the meaning of medicine." Her sensitivity pointed to what was then a deep division within the University of Vienna medical school, between the proponents of therapeutic skepticism, who vaunted research and diagnosis, and the "therapeutic optimists," Emil Zuckerkandl among them, who promoted the physician's role in healing.32

Nowhere is the evolutionary challenge to Christian theology more apparent than in *Medicine*'s revisionist view of Genesis. In a provocative allusion to the *Creation of Adam* from Michelangelo's Sistine Chapel, where God's hand reaches out to touch Adam's, Klimt renders the arms of a mortal man and woman extended in vain, the possibility of their union left to chance. In Klimt's version, Woman, not the divine Creator, bears the generative power of life; instead of the billowy cloud of drapery used to carry God in the Sistine fresco, she is borne on high by what Hevesi described, in 1901, as a blue-colored uterus motif, enveloping an infant or a late-stage embryo.³³ For Zuckerkandl, Klimt's university allegories demonstrated the "influence of contemporary scientific knowledge," and his ability to probe the "endless ceasing and becoming" deep beneath the surface of things: "The transformation of matter, for instance, is a scientific finding, which has changed our understanding of phenomena. In accordance with these dynamics, Klimt made the parturient wife central to the ideas of his painting. She represents the renewal of life that wins over illness and death."³⁴

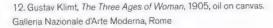
Klimt's interpretation of the womb corresponds to Haeckel's widely published images of the human embryo in utero, sheathed by a transparent vellum lining [Fig. 11]. The transparent human fabric appears again in *The Three Ages of Woman (Die drei Lebensalter*, 1905) [Fig. 12], where it conjoins mother and child and issues forth from her pelvis, inscribed by the decorative curve of a blue umbilical cord (a motif clearly visible in the second state of *Medicine*). Next to this new life, Klimt sympathetically records the geriatric body, or what Zuckerkandl described as "the stupor of a decaying organism in pain." ³⁵



 Gustav Klimt, Medicine, 1901–07, oil on canvas.
 Ceiling panel for the Great Hall of the University of Vienna, destroyed by fire in 1945



11. *Anthropogeny, or the Development of Man,* human fetus, from *The Evolution of Man*, vol. 1, by Ernst Haeckel, 1879





In the late nineteenth century, images of scantily draped women served as a standard allegory of nature unveiled and possessed by male science, reinforcing the unequal power relation between the sexes.36 Klimt resorts to this trope only in the figure of Death in Medicine, who proffers the ultimate truth from behind an organza shroud, decorated with distinct circles and crosses in a binary gender code. Otherwise, Klimt dispensed with coy or theatrical unveiling, as evidenced in Nuda Veritas (1899) [Fig. 13], his manifesto of art and science as nature in plain sight. Here the uterine veil appears in a tadpole shape, formed by blue lines that swell behind the womb and lower body of the allegorical female figure; the watery hue also refers to the domain of our ancient human origins in the sea. The fertile daisy adorns her hair, while below her snakes the phallic serpent of classical and biblical myth, whose meaning is redoubled as a fellow vertebrate. On either side rise the luminous, globular heads of dandelion flowers-the genus Leontodon taraxacum, as Hevesi insisted on noting-which disseminate their seed through the wind, mingling the Secession's spread of new ideas with nature's own adaptive mechanisms.37

In a reversal of the self-absorbed female, she holds the allegorical mirror up to the male viewer so that he might see his own reflection as mere flesh, but now







without the moral compass that governed previous depictions of nudity. Klimt's "truth" upset the traditional allegorical function of the female as a vehicle for a higher ideal or spiritual transcendence because, after Darwin, the body in painting stands nakedly for itself: a biological species subject to the same procreative laws as every other organism. Hence the frequent charges of pornography leveled against Klimt for both the public university murals and the *Beethoven Frieze* (*Beethovenfries*, 1902). In the latter, he embellished the act of consummation in a womb-enshrined embrace, the embryonic veil binding male and female in a common destiny as it swirls around their lower legs. "The final aim of all love intrigues," wrote Darwin, quoting Arthur Schopenhauer, "... is really of more importance than all other ends in human life. What it all turns upon is nothing less than the composition of the next generation It is not the weal or woe of any one individual, but that of the human race to come, which is here at stake."³⁷

Despite the compositional differences found in the third university mural, Jurisprudence [Fig. 14] also elaborated the evolutionary theme, interpreting its given subject as the higher moral sense of the human species. The vertical registers in diminishing perspective mark the ascent of man's social instincts, from brutal impulse and vendetta to organized institutions of collective self-preservation: the courts of law. Man has only recently emerged from a state of

Gustav Klimt, Nuda Veritas, 1899, oil on canvas.
 Österreichische Galerie Belvedere, Vienna

14. Gustav Klimt, Jurisprudence, 1903–07, oil on canvas. Ceiling panel for the Great Hall of the University of Vienna, destroyed by fire in 1945

15. "Octopus vulgaris Lamarck;" from *Illustrierte Naturgeschichte der Thiere*, edited by Philipp Leopold Martin, 1882



16. Gustav Klimt, Beethoven Frieze, 1902, casein colors on a stucco base with semiprecious stone inlay

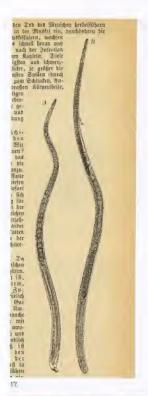
barbarism, as late-nineteenth-century anthropologists noted, and Klimt devotes most of the panel to the dark recesses of criminality. He links the aged man in the dock and his deviant behavior to bestial biological origins, invoking the return of the repressed with the tentacular embrace of a primeval octopus (a source for which is found in the *Illustrierte Naturgeschichte der Thiere* [Fig. 15]. The three Furies of archaic Greek myth, sent from the depths of Tartarus, symbolize primeval forms of penal retribution. They are, as Hevesi observed, allegories of vengeful, and hence lesser, morals from a remote time, "like lemures in the twentieth century. Klimt conceived them with [Jan] Toorop's daughters and they bear their father's features." As befits humanity's rise to civilization, embodied in Truth, Justice, and Law above, Klimt's ornament transforms from the germinating papillae and writhing arabesques below to the structured circles, squares, and triangles on high, redolent of the already "cultured" Geometric Style.

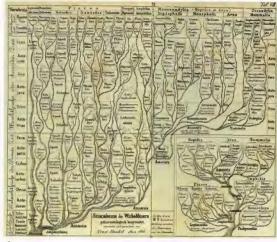
The linking of moral degradation to animal descent rather than free will comes to the fore in Klimt's *Beethoven Frieze*, where Typhon, the ancient Greek evil giant, appears unconventionally as a gorilla [Fig. 16], a primate dangerously close to man. ("The Devil in the form of Baboon is our grandfather!" exclaimed Darwin in his notebooks.)⁴⁰ The unwelcome ancestor had strayed into high art in the Paris Salon of 1859, with Emmanuel Frémiet's sculpture *Gorilla Carrying Off a Negress* (*Gorille enlevant une femme*), which the artist reprised with even greater notoriety in 1887.⁴¹ Klimt's choice, though previously uncommented on, underscores the *Beethoven Frieze* as an allegory of "the struggle for happiness" in evolutionary terms: overcoming the "hostile" forces of nature by the altruistic virtues necessary for the welfare of the human species. The three Gorgons of Disease, Insanity, and Death—the afflictions of the body—accompany the unruly beast, along with personifications of Licentiousness, Intemperance, and Indecency—reversions of the soul. These precise behaviors are the same three Darwin uses in his writing on the moral sense, to distinguish savage from civilized societies.⁴² The resolute

knight is compelled by the "internal driving forces" of Ambition and Sympathy, the latter being the marker of true humanity, continues Darwin, since it extends the strong desire for the common good beyond the tribe to all nations and races. Humanity progresses through procreation and the arts, Klimt affirms—the only means of triumph over the inevitability of death.

The narrative unfolds further by nature's ornamental design, the lower realm articulated by serpentine line and hairy filaments running profligate in a cavernous realm of reptilian motifs and snakeskin patterns. Sources for the gorgeously flecked and striated worms, winding and slung in several of Klimt's canvases of the period, can be found in his copy of the Illustrierte Naturgeschichte der Thiere [Fig. 17]. Skulls dissipate into amoeba-like organisms forming the backdrop for "Gnawing Worry," an anguished creature who sinks into the reticulated coils of despair. In contrast, the kingdom of higher humanity is rendered in spaces of empty white and transcendent gold, where the biologically grounded spores, eggs, and flowers obligingly disperse in regulated rhythms and parallel trajectories. "Klimt's senses grasp the invisible and immaterial in shapes and lines." confirms Zuckerkandl, "as he searches for the secrets that cover everything alive."43 It should be noted that Klimt's iconography of the tree of life, which first appears at the base of the culminating kiss in the Beethoven Frieze, and grows into the main motif of the Palais Stoclet composition (Stocletfries, 1905-11) [see pp. 379 and 380 in "Klimt and Fashion"], consists of a symmetrical and horizontal branching structure; it follows the same arboreal diagram of diversification by genealogical descent published by Darwin and extrapolated by Haeckel in his sprawling phylogenetic trees [Fig. 18],

The overly exaggerated facial features of Klimt's personifications also refer to characteristics of man's lower ilk. The snarls, sneers, teeth-baring grimaces, and furrowed brows displayed by Typhon's cortege and by the leering visages in Hope I conform to Darwin's examples in The Expression of the Emotions in Man and Animals. Distinguishing his approach from that of physiognomy (interpreting personalities from body types), Darwin analyzed the instinctive movement of facial muscles as concrete evidence of our "single stock parent ancestry." Emotional expressions are not unique to the human species, but are reflex responses to danger and pleasure inherited from the lower primates. As if to drive home the point, Klimt surmounts the Gorgons with a repulsive female who apes the squarearmed pose of the gorilla, in the hulking attitude of primal attack or defense. Darwin's observation that the uncontrollable contraction of the facial muscles destroys beauty, finds confirmation in the serene and symmetrical grace of the choral figures in the Beethoven Frieze. Their upward-turned faces and open palms typify devotion, one of the few learned or culturally acquired emotions that had not, according to Darwin, affected "the hearts of men, whilst they remained during the past ages in an uncivilized condition."44





 "Worms," from Illustrierte Naturgeschichte der Thiere, edited by Philipp Leopold Martin, 1882

18. "General Morphology of Organisms: Tree of Reptiles," from *The Evolution of Man* by Ernst Haeckel, 1879





19. Gustav Klimt, *Moving Water*, 1898, oil on canvas. Private Collection

Gustav Klimt, Nixies (Silver fish), ca. 1899, oil on canvas.
 Wien Museum

The more threatening themes of a Darwinian worldview-namely degeneration and extinction-inspired nineteenth-century artists, from Frémiet's libidinous gorilla to Odilon Redon's graphically black universe of despondent, mutant species. The heightened reception of Darwin in France after defeat in the 1870-71 Franco-Prussian War fed into widespread fear of racial and national decline. 45 Closer to home, in the exhibitions of the Secession, Klimt saw the works of Max Klinger and Arnold Böcklin, where a descriptive realism combined with fantastic storylines of primal urges and marine ancestry. As in Klimt's work, the influences of Schopenhauer and Nietzsche only enhanced these artists' pessimistic interpretation of sexual drives and aggressive social struggle. 46 On the whole, however, Klimt departs from the masculine brutalism of his Germanic peers. Grotesque breeds of humankind and fish, for example, appear only aberrantly in the early Moving Water (Bewegtes Wasser, 1898) [Fig. 19] and Nixies (Nixen, ca. 1899) [Fig. 20]. Nor do his women emerge from a dark, primeval slime, in a metaphor of abject sexuality, as seen in the work of his compatriot Alfred Kubin. Instead, after the somber inclinations of the university murals, Klimt turned to more lyrical expressions of what Darwin hailed as "the beauty and infinite complexity of the co-adaptations between all organic beings." It was precisely through ornamental profusion-the visual proof of nature's own superabundant diversity-that Klimt revealed the "inextricable web of affinities" binding humankind to the most basic of single-celled organisms.⁴⁷

In his series of Nereid paintings, *Goldfish* (*Goldfische*, 1901–02), *Water Serpents I* (*Wasserschlangen I*, 1904–07) and *Water Serpents II* (*Wasserschlangen II*, 1904–07) [Figs. 21, 22, 23], Klimt bypassed the male-gendered gorilla for the sexually ambiguous ascidians: in the watery depths lay the ancient prototype of the vertebrate kingdom, as recapitulated in the gills of the human embryo. Like Böcklin, Klimt animates his worlds with "fairytale creatures," Zuckerkandl acknowledges, but the coloristic fantasies of his "magical waters" have no peer. Modern-day women loll in the shimmering currents, their slinky contours entangled with amphibians, fish, sea anemones, starfish, and algae. The cropped human forms create a flowing sensation that evokes nature's infinitesimally small and endless process. Whereas the imaginary hybrids of other artists fill the vanished "missing links" (nature does not make leaps, Darwin admonished), Klimt deliberately draws out the morphological affinities—serpentine lines and blooming ova—between the least-and highest-developed animals.

The scandalous reception of Klimt's work derived not only from the irruption of the "Godless" natural sciences in the work of art, but also from his flamboyant vision of ornament as evolution. This fusion of beauty and functionality was one of the most problematic aspects of Darwin's theory of sexual selection, introduced in *The Descent of Man*, because the presence of embellishment in nature, ranging from





color to song, appeared to qualify the purely mechanistic conception of biological adaptation. Ornamental characteristics were secondary sexual characteristics (male, no less than female) that determined inherited traits and the successful propagation of species. Darwin accounted for the puzzling amount of finery bedecking men and beasts alike; the devastating result was that the aesthetic sense was no longer considered exclusive to humans, but commonplace in the animal kingdom.

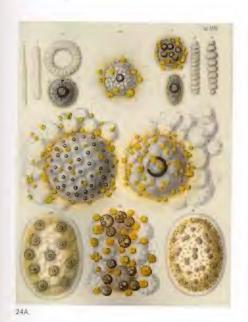
21, Gustav Klimt, Goldfish, 1901–02, oil on canvas. Private Collection22, Gustav Klimt, Water Serpents I, 1904–07, oil on canvas.Österreichische Galerie Belvedere, Vienna

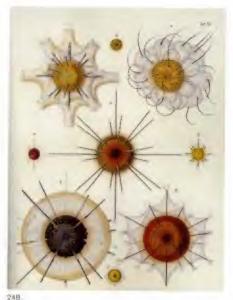


23. Gustav Klimt, Water Serpents II, 1904-07, oil on canvas. Private Collection

In Klimt's fecund patterning of line, aureole, and hue, nature—no less than woman—is seductively adorned. Preening males predominate in the courtship rituals of the lower animals, yet among the human race, Darwin argued, females have garnered the more attractive characteristics and compete for the opposite sex. *Water Serpents I* and *II*, as well as *Goldfish*, visualize this biological imperative of beauty with decorative abandon and indecorous display of flesh. In discerning the most notable aesthetic preferences transmitted over time, Darwin focused above all on the hairless bodies and long tresses inherited and bequeathed by women. ⁵⁰ Dominated by abstracted shapes of pearlescent flesh and a prodigious flow of hair, Klimt's compositions emphasize these two attributes of evolutionary design. Zuckerkandl, not surprisingly, reveled in her anatomical descriptions of Klimt's sexually resplendent female: "The iridescent flesh tone of her slender body, the phosphorescent gloss of her skin, the quadratic form of her forehead and the sinful, ginger-colored hair create a unified whole of the deepest psychological and painterly effect."⁵¹

The single-sex community of beings, notably in *Water Serpents I* and *II*, court the period's fascination with lesbianism, but also allude to the hermaphroditic character of the lowest classes of animals. Klimt's enthrallment with humankind's aquatic beginnings extended to his extravagant use of mother-of-pearl—an organic material derived from the inner shell of bisexual mollusks—in his portraits of contemporary women. In his infamous essay "Ornament and Crime" (1908), the







architect Adolf Loos railed against the Secession's "primitive" cult of decoration; perhaps what was threatening to Loos was not so much the erotic and atavistic element, but the notion of ultimate regression to gender anarchy and lack of sexual dimorphism found in the earliest forms of life.⁵²

organism group, from Art Forms from the Ocean: The Radiolarian Atlas by Ernst Haeckel, 1862

Darwin's intellectual legacy was imaginatively visualized in the specimen-rich installations of Vienna's Naturhistorisches Museum, in illustrated natural history publications like the one in Klimt's library, and in Haeckel's lushly color-printed volumes, which did the most to propagate the aesthetics of biological forms.⁵³ In his *Radiolarian Atlas* of 1862, Haeckel documented the diversity of single-celled organisms, accenting the microscopically perceived structures with jeweled hues. The glimmering shapes and flecks of gold that swim alongside Klimt's Nereids refer to the natural ornamental complexity of these normally invisible animals. An artist as well as a scientist, Haeckel sought the "naked truth" of nature's law of descent in the details of organic structure and the "morphological chain."⁵⁴ His *Art Forms in Nature (Kunstformen der Natur*, 1899–1904) furnished Art Nouveau artists with the gorgeous array of classes and species, such as the magnificently embellished ostracions that may have inspired the speckled, moiré creature with luminous eyes swimming in Klimt's *Goldfish* [Figs. 25, 21].

25. "Ostraciontes," from Art Forms in Nature by Ernst Haeckel, 1899–1904

24A. "Collozoum inerme;" and 24B. "Acanthometra"

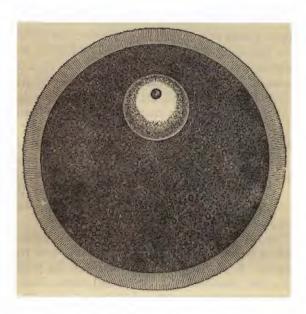
Haeckel was equally important for popularizing the link between Goethe's scientific studies of natural forms and Darwin's biological materialism. While there is no evidence to suggest that Klimt officially subscribed to Haeckel's monism—an updated theory of romantic pantheism—he was profoundly influenced by Goethe. Alma Mahler-Werfel claimed that the artist was never without a copy of Goethe's Faust in his pocket. Goethe's meditations on the origin of species in the gloaming sea permeate the scenes of Faust, Part Two: "From dragons of the sea, in their swift

courses, / They change with lissome leap to Neptune's horses, / So kin are they with elemental Ocean, / The very foam sustains their graceful motion." Gliding fish and sea-folk, produced by the triumphant life force of Eros, course through the iridescent waves of opal and gold, like the artist's own Nereids: "Here lissome youthful beauties pass, / Seen two-fold in the watery glass, / Fair limbs for gaze of pure delight." Klimt's decorative profusion gave visual expression to Goethe's ornate verbal descriptions, resulting in the painter's often noted combination of realism and romanticism: "Never was a painter more fantastical yet truer to nature," Hevesi observed. 57

The "mysterious mix of nature's power and historical romanticism"⁵⁸ that Zuckerkandl similarly perceived in Klimt's work had another particular source: cells viewed through a microscope. Such images had been published by Haeckel, but through Emil Zuckerkandl, Klimt would also have had direct access to histology, the study of the minute structure of organic tissues. Furthermore, Emil Zuckerkandl had been asked by Klimt to deliver a series of lectures, at the medical school's Institute of Anatomy, to a group of artists, writers, and musicians. Berta Zuckerkandl described one of these presentations, in which her husband apparently prepared the specimen stains and projected the images with lantern slides. The flattened shapes and coloristic effects were remarkably akin to the ornamental microcosm of a Klimt painting:

"Dear sirs and madams" Emil Zuckerkandl began, "I would like to present to you art forms in nature. You will perceive them with awe and see that nature far exceeds your own creative fantasies. One only has to aid her a little bit, and that is what I have done. With a well-thought-out tinting of tissues, a piece of epidermis, an artery, a drop of blood, a little bit of brain substance, you will be transported to a fairytale world." It got dark in the room. Then threatening images evocative of the jungle and the shapes of malicious deep-sea Nereids appeared on the screen; the hemisphere was gleaming with the dance of sunlight, the shimmer of the moon and the stars. Everyone was spellbound by the splendorous make-believe world that Zuckerkandl's fantasy had conjured. 59

Histology allowed Klimt to gaze upon the fundamental structure of creation: the internal forms of the germ cell nucleus [Fig. 26]. Organic patterns of concentric circles, pulsating with color like coronae radiatae, proliferate in his allegories of nature's fecundity. He also treated the blooming landscape like a woman, Berta Zuckerkandl observed, just as florescent ova are indistinguishable from flowers in Hope II (Die Hoffnung II, 1907–08) and several other canvases. The bodies of women are clothed by these fertile symbols or surrounded in a field of germinating eggs and seminal fluid as seen in The Three Ages of Woman. In one picture, Water Serpents I, the biological ornament progresses from a single-cell



26. "The Human Egg from the Ovary of a Female," from The Evolution of Man, vol. 1, by Ernst Haeckel, 1879, p. 122

motif to a chain of complex membranes, whose network of patterns metamorphose from magnified human epidermis into snakeskin. The flattened circles here and elsewhere are internally articulated by two long parallel shapes, alluding to the design of chromosomal division that had been discovered by the late nineteenth century.

In Klimt's oeuvre, the generative force of nature begets the creative force of the artist, reinforcing the "male as culture, female as nature" dichotomy. Yet it is the male who occupies the lower place on the moral scale, as seen in the atavistic criminal of *Jurisprudence* and the evil Typhon. Woman, like ornament, assumes primary agency in Klimt's worldview: "I am not interested in myself as a 'subject for a painting," he maintained, "but rather in others, above all women, and even more so, in other phenomena." Critics have described his ornamental worlds as dream-like and narcissistic, yet such visual impressions are the anti-naturalistic result of an obsessive empiricism. Klimt's evolutionary narratives place him in the fluid post-Darwinian, pre-Freudian cultural matrix; Egon Schiele, instead, would be the painter of psychoanalysis.

From the female as progenitor of the species, Klimt went on to depict contemporary women patrons, whose refined aesthetic judgments contributed to the artistic brilliance of the Hapsburg Empire.⁶¹ The biological role did not prevent cultural ones, as his circle of women collectors, and Zuckerkandl's formidable reputation as an art critic, affirmed. In these later portraits, allegories of organic evolution give way to the evolution of early civilizations, to new stylized shapes derived from Mesopotamia, Egypt, pre-classical Greece, and Byzantium. Here, too, Klimt's choices of motifs indicate his knowledge of the latest discoveries in anthropology and archaeology.⁶² The ornamental accompaniment of the portraits does more than adorn these women: it represents a larger history of ideas concerning the genealogy of decorative and symbolic form.

Klimt would have known the lectures and writings of Alois Riegl, professor of art history at the University of Vienna, who appended his name to the artist's defense at the time of the mural controversy. In his *Problems of Style: Foundations for a History of Ornament (Stilfragen*, 1893), Riegl argued that Geometric Style designs were the first autonomous product of the aesthetic urge that separated culture from nature, man from other animals. While Riegl denounced the determinism of Darwin's followers, he followed in the spirit of the original, demonstrating that the seemingly endless variety of motifs—the vegetal tendril and the modern arabesque, for example—were related by an internal development and underlying homologies.⁶³

But what of the singular pictures by Klimt where woman is undeniably the pleasured arbiter of death, his two images of Judith? The literature has assumed

that the myth serves as a pretext for the real subject of deviant female sexuality. The paintings have been repeatedly and erroneous titled *Salome*, even though this was not the artist's intention. For what is the actual message of Judith's story if not the survival of the fittest? The Jewess—this is the etymology of the name Judith—took whatever means necessary to save her nation from the Assyrians. (And Klimt took pains to decorate the background with a historically accurate Assyrian relief.)⁶⁴ In ferociously anti-Semitic fin-de-siècle Vienna, surrounded by a mainly Jewish clientele—including Adele Bloch-Bauer, the model for both pictures—Klimt must have been aware of the Darwinian implications of the biblical narrative. By the time of his death in 1918, however, evolutionary theory had undergone its own perversion into social Darwinism and racist eugenics.

Klimt did not live to see the Viennese Jews lose the next struggle for existence. Otto Zuckerkandl's wife, Amalie (whose portrait Klimt rendered thanks to Berta's introductions), perished after she and her daughter Nora Stiasny were deported in 1942. Berta Zuckerkandl had escaped in 1938 to Paris, where she wrote her memoirs, and then made her way to Algiers. She died in Paris after the liberation, in 1945. Her only grandchild, Emile Zuckerkandl, Professor of Biological Sciences at Stanford University, became a pioneering figure in the study of molecular evolution.

Translations from the German are mine, unless noted otherwise. For their help in translating the writings of Berta Zuckerkandl, I thank Susanne Ruembeli and Luise Mahler, who also worked as my research assistant on this project. I am grateful for conversations with Leonard Groopman and Roger Persell on evolutionary theory and the history of late-nineteenth-century medicine and biology. Additional appreciation is due to Stephanie D'Alessandro, Veronique Chagnon-Burke, Lynda Klich, and especially Lucia Re and Anna Jardine.

NOTES

- 1 Rosaleen Love, "Darwinism and Feminism: The 'Woman Question' in the Life and Work of Olive Schreiner and Charlotte Perkins Gilman," in *The Wider Domain of Evolutionary Thought*, eds. David Oldroyd and Ian Langham (Boston and Dordrecht: D. Reidel, 1983), pp. 113–31. In the same volume, see Evelleen Richards, "Darwin and the Descent of Woman," pp. 57–111, for an analysis of Charles Darwin's androcentric bias as a product of his Victorian times.
- 2 Klimt's images have often been considered in tandem with the anti-Semitic, misogynist views of Otto Weininger, or used as evidence in feminist revisions of Freud's interpretation of female sexuality; see, for example, Eva di Stefano, Il complesso di Salomè (Palermo: Sellerio, 1985); Marie-Luise Angerer, "The Discourse on Female Sexuality in Nineteenth Century Austria," in Austrian Women in the Nineteenth and Twentieth Centuries, eds. David F. Good, Margarete Grandner, and Mary Jo Maynes (Oxford: Berghahn, 1996), pp. 179–95; and Angelica Bäumer, Gustav Klimt: Women, trans. Ewald Osers (London: Weidenfeld and Nicolson, 1986). The essay herein offers a more nuanced view. Klimt's biologically infused motifs have been sensitively analyzed by Alessandra Comini, Gustav Klimt (New York: Braziller, 1975), and Werner Hoffman, Gustav Klimt, trans. Inge Goodwin (New York: Graphic Society, 1971). Klimt's intimacy with the Zuckerkandls and their circle, however, begs a more programmatic reading of his iconography as a direct response to Darwinian ideas. Similarly, Klimt's consistent application of evolutionary theory—the ideas of both natural and sexual selection—qualifies the view proposed by Carl E. Schorske in Fin-desiècle Vienna: Politics and Culture (New York: Knopf, 1980), who sees a distinct break between Klimt's socially committed university murals and the "retreat" of his later ornamental canvases.
- 3 Berta Zuckerkandl, "Gustav Klimt: Zur Eröffnung seiner Ausstellung" (On the opening of his exhibition), Wiener Allgemeine Zeitung, November 14, 1903, reprinted (and misdated as 1904) in Zuckerkandl, Zeitkunst Wien, 1901–1907 (Vienna: H. Heller, 1908), pp. 86–93.
- 4 On Zuckerkandl's salon and her role as a power broker and cultural organizer in pre-World War I Vienna, see Emily Bilski and Emily Braun, "The Power of Conversation: Jewish Women and Their Salons," in *The Power of Conversation: Jewish Women and Their Salons* (New Haven, CT: Yale University Press, 2005), pp. 85–98. As always, I am indebted to Emily Bilski for her precious collaboration and knowledge of Berta Zuckerkandl.
- 5 Olaf Herling, "Berta Zuckerkandl (1864–1945), oder Die Kunst weiblicher Diplomatie," in Das alles war ich: Politikerinnen, Künstlerinnen, Exzentrikerinnen der Wiener Moderne, ed. Frauke Severit (Vienna: Böhlau, 1998), p. 54. See also Gesa von Essen, "Hier ist noch Europal–Berta Zuckerkandls Wiener Salon," in Europa–Ein Salon? Beiträge zur Internationalität des literarischen Salons, eds. Roberto Simanowski, Horst Turk, and Thomas Schmidt (Göttingen: Wallstein, 1999), pp. 191–213.
- 6 Ludwig Hevesi, "Zum Geleit," in Zuckerkandl, Zeitkunst Wien, 1901–1917, pp. vii–viii; Berta Szeps Zuckerkandl, My Life and History, trans. John Sommerfield (London: Cassell, 1938), pp. 143–44; and "Gustav Klimt," Neues Wiener Journal, February 5, 1931. Zuckerkandl's politicized account of Klimt's retraction of his university murals, "Die Klimt-Affäre" (The Klimt Affair), Wiener Allgemeine Zeitung, April 12, 1905, is translated and reprinted in Appendix I in this volume. Besides writing a regular column for the Wiener Allgemeine Zeitung and, after World War I, the Neues Wiener Journal, Zuckerkandl was an Austrian correspondent for the German art periodicals Die Kunst für Alle (Die Kunst) and Deutsche Kunst und Dekoration. She also contributed to the Secession journal Ver Sacrum.
- 7 Hevesi, "Zum Geleit," p. vii.
- 8 Zuckerkandl, My Life and History, pp. 142–43. In addition to the numerous allusions to science and generative biology in Berta Zuckerkandl's writing, her discussions of Klimt are framed within a nationalist discourse and contain frequent musical analogies.
- 9 Emil Zuckerkandl joined the medical faculty in 1888; see Erna Lesky, The Vienna Medical School of the 19th Century (Baltimore, MD: Johns Hopkins University Press, 1976), pp. 460–64. Zuckerkandl, who had studied under the formidable Josef Hyrtl, published Normal and Pathological Anatomy of the Nasal Cavity and Its Pneumatic Appendices (Vienna, 1882), which had an enormous effect on the development of modern rhinology. According to Lesky, pp. 463–64, Zuckerkandl was a beloved and effective teacher and used the most diverse methods in the field: "pure descriptive morphology, comparative anatomy, embryology, anthropology and especially topographical anatomy." His research culminated in the publication of his four-volume Atlas of Human Topographical Anatomy (Vienna, 1899–1904).
- 10 Berta Zuckerkandl, Österreich intim: Erinnerungen 1892–1942, ed. Reinhard Federman (Vienna: Propyläen, 1970), p. 132.

- James Shedel, Art and Society: The New Art Movement in Vienna 1897–1917 (Palo Alto, CA: Society for the Promotion of Science and Scholarship, 1981), pp. 121–22. Shedel suggests that Emil Zuckerkandl was the anonymous professor of medicine featured in an interview in the Arbeiter Zeitung of March 29, 1900, who positioned himself against the rector of the university, Dr. Wilhelm Neumann, for his protest against the Klimt murals. According to Berta Zuckerkandl, Österreich intim, pp. 63–64, Emil led the faculty in defense of Klimt's murals and called on the art historian Franz Wickhoff, then in Rome, to deliver his favorable opinion. When another faculty chair protested that Klimt had dared "to take on what Raphael had achieved for eternity," Emil Zuckerkandl responded that the idea of the universe had radically changed since Raphael: "If medicine, philosophy, and jurisprudence have all progressed since the renaissance, why cannot artists evolve as well?"
- 12 Fritz Novotny and Johannes Dobai, Gustav Klimt: With a Catalogue Raisonné of His Paintings (London/New York: Thames and Hudson; Praeger, 1968), p. 383, chronology for 1897: "Anatomical studies under Professor Emil Zuckerkandl in the dissecting room."
- Zuckerkandl, Österreich intim, pp. 24–25, recounts an evening at the elder Schnitzler's, where he expressed his frustration with his son's decision to pursue a literary career to Emil Zuckerkandl. Berta's account of the history of the medical school, "Wien, Stadt der Heilkunst," is found on pp. 49–55, and "Sigmund Freud" on pp. 84–86. See also her My Life and History, pp. 125–28, 132–33. On the various illustrious doctors in the Zuckerkandl circle, see Lesky, The Vienna Medical School of the 19th Century. The modern Viennese medical school was founded by the pathologist Karl von Rokitansky (b. 1804, d. 1878), whose therapeutic skepticism was profoundly influenced by Darwin's theories of evolution and by Arthur Schopenhauer's idealism and pessimism. See Mark Luprecht, "What People Call Pessimism": Sigmund Freud, Arthur Schnitzler and Nineteenth-Century Controversy at the University of Vienna Medical School (Riverside, CA: Ariadne Press, 1991), p. 3.
- 14 See Alfred Kelly, The Descent of Darwin: The Popularization of Darwinism in Germany, 1860–1914 (Chapel Hill: University of North Carolina Press, 1981).
- 15 Zuckerkandl, My Life and History, pp. 134-36.
- 16 Harriet Anderson, *Utopian Feminism: Women's Movements in Fin-de-Siècle Vienna* (New Haven, CT: Yale University Press, 1992), p. 9, notes that the term "feminist" was at this time usually reserved for male supporters of the movement by its opponents. Around the turn of the century, Emil Zuckerkandl was one of two men on the committee of the Association for Extended Women's Education, and he lectured on anatomy at the Art School Association for Women and Girls and the Athenäum: Association for the Holding of Academic Courses for Women and Girls (pp. 18–19, 28). Another active feminist was the philosopher Friedrich Jodl, who, liberal though he was, spoke out prominently against Klimt's university murals.
- 17 Zuckerkandl, My Life and History, p. 133. In the same passage on Emil's pioneering efforts on behalf of women students, she continues: " ... when his endeavors were crowned with success and women were admitted to the medical faculty, he was the first to choose a woman for his assistant—Frau Dr. Bien, who subsequently became one of the most famous of children's doctors. Trouble arose from this at the very first lecture, when Dr. Bien had, as was usual for an assistant during an anatomical lecture, to take round prepared specimens of the organs that were being discussed. The organs in question were those which were not usually mentioned in a gathering of both sexes. The students began to shout and whistle and protest. Zuckerkandl sent for the porters to throw them out of the lecture. It was the first and last protest they made."
- 18 Anderson, *Utopian Feminism*, p. 246. Rosa Mayreder, an artist and the founder of the Art School Association for Women and Girls, was married to the architect Karl Mayreder, in whose firm Adolf Loos worked in 1896. In 1900, Loos designed the home for the Vienna Women's Club, of which Berta Zuckerkandl was a member. A year later, the space for the Viennese Settlement Association (a middle-class outreach program for proletarian families) was outfitted by Josef Hoffmann, Koloman Moser, and Alfred Roller. See Anderson, pp. 46, 103, 113. On Berta Zuckerkandl's relationship to the progressive General Austrian Women's Association, including her writing on fashion for the journal *Dokumente der Frauen*, see Anderson, pp. 61, 110, 113. On Rosa Mayreder, see Shedel, *Art and Society*, pp. 156–58.
- 19 Among Zuckerkandl's extensive writings on fashion for the Wiener Allgemeine Zeitung, especially on the influence of the Klimt-Gruppe and the exchanges between the Wiener Werkstätte and Paul Poiret are: "Kunst und Kultur: Wiener Werkstätte-Kleider," April 29, 1911; "Bei Paul Poiret," November 25, 1911; "Feuilleton: Die Conference von Paul Poiret," November 27, 1911; and "Paris 1912: Von Kunst und Künstlerischer Mode (Utamaro und Poiret)," February 24, 1912. See also "Die Wiener

- Mode-Ausstellung," Deutsche Kunst und Dekoration, vol. 38, April-September 1916, pp. 79-81; "Paul Poiret und die Klimt-Gruppe," Neues Wiener Journal, November 25, 1923; and Österreich intim, pp. 100-104.
- Berta Zuckerkandl, "Kunst und Kultur: Die Hoffnung," Wiener Allgemeine Zeitung, April 26, 1909. The history of the controversy surrounding the painting and its exhibition are detailed in John Collins, "Klimt's Hope I: New Documentation and Its Interpretation," National Gallery of Canada Review, vol. 2, 2001, pp. 27–58. Johannes Dobai, "Gustav Klimt's 'Hope I', Bulletin. National Gallery of Canada, vol. 17, 1971, p. 2, notes that "guter Hoffnung" is an old German expression equivalent to the English saying "to be expecting"—a meaning that is lost in the literal translation Hope. Schorske, Fin-de-siècle Vienna, p. 252, also refers to the painting as Expectancy.
- 21 Zuckerkandl, "Kunst und Kultur: Die Hoffnung," referring to A. M. Pachinger, Die Mutterschaft in der Malerei und Graphik (Munich/Leipzig: Georg Müller, 1906). Zuckerkandl's argument was slightly ingenuous, since only two out of the numerous illustrations in the book depicted pregnant women in the nude.
- 22 Charles Darwin, On the Origin of Species by Means of Natural Selection (1859), published as The Origin of Species (London: Penguin, 1968), p. 428. See also Darwin, The Descent of Man, and Selection in Relation to Sex (1871) (London: Penguin, 2004), pp. 21–28.
- Dobai, in "Gustav Klimt's 'Hope I," pp. 2–15, comments on the "tadpole" shape but does not connect it to a symbolic representation of the developing fetus, even as he notes the symbolic uterus motif in Klimt's Medicine and likens it to the graphically explicit embryos depicted by Aubrey Beardsley (Here Begins a New Life, 1893) and Edvard Munch (Madonna, 1895). He does, though, suggest (p. 10) that Hope I may have been "a protest against Victorian suppression of the facts of life."
- 24 Ernst Haeckel first expounded his theory in Generelle Morphologie der Organismen (Berlin: G. Reimer, 1866). A later exposition is found in The Evolution of Man: A Popular Exposition of the Principal Points of Human Ontogeny and Phylogeny, 2 vols. (New York: D. Appleton and Co., 1879). On the history of the theories of mechanisms for recapitulation, see Stephen Jay Gould, Ontogeny and Phylogeny (Cambridge, MA: Harvard University Press, 1977). Gould, pp. 76–78, notes that as Haeckel's later works became increasingly mystical and irrational, his theories of racial purity fed into National Socialism.
- 25 Christian Nebehay, Gustav Klimt Dokumentation (Vienna: Galerie Christian M. Nebehay, 1969), p. 53, under "Klimts Bibliothek." Illustrierte Naturgeschichte der Thiere, 4 vols., general ed. Philipp Leopold Martin (Leipzig: Brockhaus, 1882–84).
- 26 Susanna Partsch, Gustav Klimt: Painter of Women (Munich: Prestel, 1994), pp. 58, 66.
- 27 Sigmund Freud, "A Difficulty in the Path of Psychoanalysis" (1917), cited and discussed by Gillian Beer, Darwin's Plots: Evolutionary Narrative in Darwin, George Eliot and Nineteenth-Century Fiction (London: Routledge and Kegan Paul, 1983), pp. 12-13. Freud's three blows are the cosmological (Copernican theory), biological (Darwinism), and psychological (Freudian psychoanalysis). In his Klimt chronology for 1897, Dobai (Novotny and Dobai, Gustav Klimt, p. 383), mentions the influence of Darwinism on the artist, but does not elaborate. In her essay "Zu den Fakultätsbildern von Gustav Klimt," Albertina Studien, no. 4 (1964), pp. 144-48, Alice Strobl discusses the influence of Darwin on Hans Canon's The Cycle of Life (Der Kreislauf des Lebens, 1884-85), but does not consider it for Klimt's university murals. Julius Viktor Carus translated Darwin's On the Origin of Species (1859) and The Descent of Man (1871) as part of Charles Darwins gesammelte Werke (Stuttgart: F. Schweizerbart, 1875-78). As Kelly, Descent of Darwin, writes (pp. 5-7), Darwin's works were not as widely read in Germany as were those of his disciples. Darwinism was associated with liberal and leftwing groups (including the women's movement) and employed in their push for social reforms. Given his contacts with the scientific community, it is likely that Klimt read Darwin directly, as well as Haeckel, even though, as Beer writes in Darwin's Plots (p. 6): "The question of who read Darwin, or whether a writer had read Darwin, becomes only a fraction of the answer Ideas pass more rapidly into the state of assumptions when they are unread."
- 28 Fritz von Ostini, "Die VIII Internationale Kunstausstellung im Kgl. Glaspalast zu Munchen," Die Kunst für Alle (Die Kunst), vol. 16, 1901, p. 542; and see the collective criticism deriding the university murals and the Beethoven Frieze gathered in Hermann Bahr, Gegen Klimt (Vienna: J. Eisenstein, 1903).
- 29 Timothy Gantz, Early Greek Myth: A Guide to Literary and Artistic Sources, vol. 2 (Baltimore, MD: Johns Hopkins University Press, 1993), p. 496. Klimt, familiar as he was with classical art, probably knew that the riddle first appears in the fourth century BC with Asklepiades: "Two-footed and four-footed and three-footed upon the earth, it has a single voice, and alone of all those on land or in the air or sea, it changes form. And when it goes supported on three feet, then the speed of its limbs is weakest." I thank Mary Moore for this reference.

- 30 Anonymous reviewer, "Personal-und-Atelier-Nachrichten," Die Kunst für Alle (Die Kunst), vol. 15, 1900, p. 500. Ludwig Hevesi's description of Philosophy was also replete with metaphors of origin and the struggle for existence; see the translation of his essay in Christian Nebehay, Gustav Klimt: From Drawing to Painting (New York: Abrams, 1994), p. 69.
- 31 Beer, Darwin's Plots, p. 9.
- 32 Berta Zuckerkandl, "Wiener Ausstellungen," Die Kunst für Alle (Die Kunst), vol. 16, 1901, p. 356. Luprecht, "What People Call Pessimism," pp. 1–50.
- 33 Ludwig Hevesi, cited in Dobai, "Gustav Klimt's 'Hope I,"" pp. 7 and 15, n. 24.
- 34 Zuckerkandl, "Gustav Klimt: Zur Eröffnung seiner Ausstellung."
- 35 Berta Zuckerkandl, "Kunst und Kultur: Die Kunstschau 1908," Wiener Allgemeine Zeitung, June 6, 1908.
- 36 Ludmilla Jordanova, Sexual Visions: Images of Gender in Science and Medicine Between the Eighteenth and Twentieth Centuries (New York: Harvester Wheatsheaf, 1989), especially chap. 5, "Nature Unveiling Before Science," pp. 87–110.
- 37 Ludwig Hevesi, reprinted in Nebehay, Gustav Klimt: From Drawing to Painting, p. 91; see also Novotny and Dobai, Gustav Klimt, p. 382.
- 38 Darwin, The Descent of Man, p. 653.
- 39 Ludwig Hevesi, "Goldene Gewissensbisse" (1903), reprinted in Otto Breicha, ed., Gustav Klimt: die goldene Pforte: Werk, Wesen, Wirkung: Bilder und Schriften zu Leben und Werk (Salzburg: Galerie Welz, 1978), p. 72. Continuing the metaphor of hybrid ancestral origins, Hevesi notes that "conscience is depicted by the mighty giant polyp His skin is speckled with spots just like a tiger, a deep-sea tiger of the most novel construction."
- 40 James Moore and Adrian Desmond, quoting Darwin's notebooks of 1837–38, in their introduction to his Descent of Man, p. xxii.
- 41 On the iconography of the ape in the fine arts and popular culture since Darwin, see Ted Gott, Kiss of the Beast (South Brisbane, Australia: Queensland Art Gallery, 2005). I thank Douglas Druick for this reference.
- 42 Darwin, Descent of Man, pp. 142–43. Klimt's program for the Beethoven Frieze published in the XIV Secession catalogue is reprinted in Novotny and Dobai, Gustav Klimt, p. 387.
- 43 Zuckerkandl, "Gustav Klimt: Zur Eröffnung seiner Ausstellung."
- 44 Charles Darwin, The Expression of the Emotions in Man and Animals (1872) (Chicago: University of Chicago Press, 1965); see especially pp. 14, 218, 359. Darwin, whose book was published in German in 1877 as Der Ausdruck der Gemüthsbewegungen bei dem Menschen und den Thieren, based many of his observations on the experiments of Guillaume Duchenne, the author of "Mécanisme de la physionomie humaine" (1862), who took photographs of the effects of electrical prompting of the facial muscles. The two drew different conclusions, however.
- 45 Barbara Larson, "Evolution and Degeneration in the Early Work of Odilon Redon," Nineteenth Century Art World Wide, vol. 2, Spring 2003, Special Issue, The Darwin Effect: Evolution and Nineteenth Century Visual Culture, eds. Linda Nochlin and Martha Lucy. See also Martha Lucy, "The Evolutionary Body: Refiguring the Nude in Post-Darwinian French Art" (Ph.D. dissertation, Institute of Fine Arts, New York University, 2004).
- 46 See Marsha Morton's excellent essay "Impulses and Desires': Klinger's Darwinism in Nature and Society," Nineteenth Century Art World Wide, vol. 2, Spring 2003.
- 47 Darwin, Origin of Species, pp. 153, 415. The metaphoric capacity of Darwin's view of nature and its influence on late-nineteenth-century literature and thought are beautifully elaborated by Beer in Darwin's Plots, especially chap. 3, "Analogy, Metaphor, and Narrative in The Origin," pp. 79–103.
- 48 Berta Zuckerkandl, "Von Ausstellungen and Sammlungen," Die Kunst für Alle (Die Kunst), vol. 19, 1903–04, p. 163.
- 49 Darwin, Origin of Species, p. 233.
- 50 Darwin, Descent of Man, pp. 668-74.
- 51 Zuckerkandl, "Gustav Klimt: Zur Eröffnung seiner Ausstellung."
- 52 Adolf Loos, "Ornament and Crime," in *The Architecture of Adolf Loos*, eds. Yehuda Safran and Wilfried Wang (London: Arts Council of Great Britain, 1985), pp. 100–103. For a slightly different interpretation of Loos's fear of atavism linked to Cesare Lombroso's criminal anthropology, see Jimmy Canales and Andrew Herscher, "Criminal Skins: Tattoos and Modern Architecture in the Work of Adolf Loos," *Architectural History*, vol. 48, 2005, pp. 235–55.
- 53 Christa Riedl-Dorn, Das Haus der Wunder: Zur Geschichte des Naturhistorischen Museums in Wien (Vienna: Holzhausen, 1998). Vienna's Naturhistorisches Museum, designed by Gottfried Semper,

opened in 1889. Darwin was the only living notable to be represented among the statues adorning the roof, while a copy of *The Descent of Man* was depicted in the interior frieze decoration by Viktor Tilgner. The museum's holdings were rich in specimens collected during the 1857–59 circumnavigation of the globe by the S. M. *Novara*, an Austrian naval frigate; Emil Zuckerkandl participated in the cataloguing of the *Novara* expedition (Riedl-Dorn, pp. 169, 187–88).

Ernst Haeckel, Art Forms from the Ocean: The Radiolarian Atlas of 1862, with an introductory essay by Olaf Breidbach (New York: Prestel, 2005); and Breidbach, Visions of Nature: The Art and Science of Ernst Haeckel (New York: Prestel, 2006). See also Erika Krause, "L'influence de Ernst Haeckel sur l'Art nouveau," in Jean Clair, ed., L'âme au corps: Arts e Sciences, 1793–1993 (Paris: Réunion des musées nationaux, 1993), pp. 342–50, and Paul Greenhalgh, ed., Art Nouveau 1890–1914 (London: Victoria and Albert Museum, 2000).

- 54 Ernst Haeckel, in one of his most stridently pro-evolution tracts, The Dagger of Darkness: Three Lectures on Evolution, trans. Joseph McCabe (Girard, KS: Appeal to Reason, 1905), p. 56, writes that the zoologist or anthropologist "seeks to discover the naked truth, as it is yielded by the great result of modern science, in which there is no longer any doubt that man is really a descendant of the ape."
- 55 References to Johann Wolfgang von Goethe and his achievement as an evolutionary theorist are found throughout Haeckel's texts; see in particular The History of Creation: or the Development of the Earth and Its Inhabitants by the Action of Natural Causes (New York: D. Appleton and Co., 1892).
- Johann Wolfgang von Goethe, Faust, Part Two, trans. Philip Wayne (London: Penguin, 1959), pp. 144, 116. Alma Mahler-Werfel, Mein Leben (Frankfurt: Fischer, 1960), p. 77. Berta Zuckerkandl makes the comparison between the "young and beautiful" women of Goethe's Faust and Klimt's depiction of the Furies in Jurisprudence in "Von Ausstellungen and Sammlungen," p. 162.
- 57 Hevesi, "Goldene Gewissensbisse," p. 72.
- 58 Berta Zuckerkandl, "Kunstschau 1908 in Wien," Wiener Allgemeine Zeitung, October 15, 1908.
- 59 Zuckerkandl, Österreich intim, p. 133.
- 60 Gustav Klimt, quoted in Nebehay, Gustav Klimt: From Drawing to Painting, p. 284.
- 61 Tobias Natter and Gerbert Frodl, eds., Klimt's Women (Vienna/New Haven, CT: Österreichische Galerie Belvedere; Yale University Press, 2001).
- 62 Klimt's informed appropriations of preclassical sources are well documented in M. E. Warlick, "Mythic Rebirth in Gustav Klimt's Palais Stoclet Frieze: New Considerations of Its Egyptianizing Form and Content," Art Bulletin, vol. 74, March 1992, pp. 115–34; Lisa Florman, "Gustav Klimt and the Precedent of Ancient Greece," Art Bulletin, vol. 72, June 1990, pp. 310–26 (Florman argues for the influence of Nietzsche on Klimt's preferences for an archaic ornamental style); and J. Leshko, "Klimt, Kokoschka und die mykenischen Funde," Mitteilungen der Österreichischen Galerie, vol. 13, 1969, pp. 16–40.
- Alois Riegl, Problems of Style: Foundations for a History of Ornament, trans. Evelyn Kain (Princeton, NJ: Princeton University Press, 1992), especially pp. 4, 21–23, 229. Warlick, "Mythic Rebirth in Gustav Klimt's Stoclet Frieze," following Leshko, "Klimt, Kokoschka und die mykenischen Funde," also posits the influence of Riegl on Klimt. According to Wolfgang Kemp in his introduction to Riegl, The Group Portraiture of Holland (Los Angeles: Getty Research Institute for the History of Art and the Humanities, 1999), p. 21, Riegl backed Klimt's supporters at the university (where he taught from 1897 to 1905) by writing a professional opinion, but only after some hesitation.
- 64 Comini, Gustav Klimt, p. 23. As Comini has shown, the background of Judith I is based on the Assyrian palace relief of Sennacherib.
- See Natter and Frodl, Klimt's Women, pp. 146–47. The portrait of Amalie Zuckerkandl remained unfinished, though the artist was paid for it. Amalie converted to Judaism when she married Otto Zuckerkandl in 1895; they divorced in 1919. Klimt had also painted the Portrait of Paula Zuckerkandl, the wife of Victor, in 1912. See Novotny and Dobai, Gustav Klimt, nos. 213 and 188. Otto and Paula Zuckerkandl remained childless, and both died in 1927. The portrait of Paula, left in storage in Berlin, was likely destroyed during World War II with the Allied bombing. Another sister-in-law of Berta's, Amalie Redlich, who was the sister of Emil, Otto, and Victor, was deported with her daughter Mathilde Jorisch to Lodz in 1941. See Sophie Lillie, Was einmal war: Handbuch der enteigneten Kunstsammlungen Wiens (Vienna: Czernin, 2003), pp. 920 and 1258.